- Address:
- Jet Propulsion Laboratory
- MS 238-420
- 4800 Oak Grove Drive
- Pasadena, CA 91109

- Phone:
- 818-354-1987

- E-mail:
- Michael.K.Cheng@jpl.nasa.gov

- Curriculum Vitae:
- Click here

Education

- Ph.D., Electrical and Computer Engineering, University of California, San Diego, La Jolla, CA (2004)
- M.S., Electrical and Computer Engineering. The University of Texas at Austin, Austin, TX (1997)
- B.S., Electrical and Computer Engineering, Carnegie Mellon University, Pittsburgh, PA (1995)

Research Interests

- Protecting memory devices against errors in extreme radiation environments
- Improving the coded modulation performance of software defined radios
- Designing efficient protocols for space communications

Professional Experience

- Jet Propulsion Laboratory (2004 - present)
- National Semiconductor(1997-1998)

Selected Publications

1. S. Jeon, E. Hwang, B. V. K. Vijaya Kumar, and M. K. Cheng, "LDPC Codes for Memory Systems with Scrubbing," *IEEE Globecom*, Miami, FL, December 2010.

2. S. Jeon, E. Hwang, B. V. K. Vijaya Kumar, and M. K. Cheng, "A Mutlibit-per-Cell Memory Model and Non-binary LDPC Codes," *IEEE Globecom Workshops*, Miami, FL, December 2010.

3. E. Hwang, S. Jeon, R. Negi, B. V. K. Vijaya Kumar, and M. K. Cheng, "Scrubbing with Partial Side Information for Radiation-Tolerant Memory," *IEEE Globecom Workshops*, Miami, FL, December 2010.

4. C. Lansdowne, A. Schlesinger, M. K. Cheng, and D. Lee, "Jitter Induced Symbol Slip rates in Next-Generation Ground Segment Receivers, " *AIAA Space Ops*, Huntsville, AL, April 2010.

5. M. K. Cheng and L. P. Clare, "Prototype Development and Testing to Advance IP over CCSDS," *AIAA Space Ops*, Huntsville, AL, April 2010.

6. P. Tsao, M.K. Cheng, G. Lu, and C. Okino, "Adaptive Source and Channel Coding for Distributed Applications," *IEEE Aerospace Conference*, Big Sky, MT, March 2010.

7. M. Cheng, S. Duy, D. Divsalar, "Structured LDPC Codes with Bandwidth Efficient Modulation," *SPIE Defense Security and Sensing*, Orlando, Florida, April 2009.

8. M. K. Cheng, M. Lyubarev, M. A. Nakashima, K. S. Andrews, and D. Lee, "Integrated Performance of Next Generation High Data Rate Receiver and AR4JA LDPC Codec for Space Communications," *AIAA SpaceOps*, Heidelberg, Germany, May 2008.

9. E. Bodine and M. Cheng, "Characterization of Luby-Transform codes with small message size for low-latency decoding," *IEEE International Conference on Communications*, Beijing, China, May 2008.